

# Noah

BY THE NUMBERS

1 2 3 4 5 6 7 8 9

10 11 12 13 14 15

16 17 18 19 20 21

22 23 24 25 26

27 28 29 30 31 32

33 34 35 36 37 38

39 40 41 42 43

44 45 46 47 48

49 50 51 52 53 54

55 56 57 58 59 60

61 62 63 64 65

66 67 68 69 70

71 72 73 74 75 76

77 78 79 80 81 82

83 84 85 86 87 88

89 90 91 92 93 94

95 96 97 98 99 100

101 102 103 104 105

106 107 108 109 110

111 112 113 114 115

116 117 118 119 120

121 122 123 124 125

126 127 128 129 130

131 132 133 134 135

136 137 138 139 140

141 142 143 144 145

146 147 148 149 150

*calendrical clues in the Flood*

1 5 3 4 2 9 1 8 0

**COPYRIGHT MMX © NICK DRUMBOLIS**

**ISBN 0-921688-40-7**

**THE MYTH OF AN ANCIENT GLOBAL DELUGE** is one of our most ingrained legacies from the past. Innumerable cultures preserve versions of this myth – the oldest extant texts deriving from Mesopotamia, in the Eridu *Genesis* and Sumerian *Gilgamesh* narratives. The Biblical account of a flood can be readily traced back to these earlier texts.

The account of the Flood in the Bible, however, contains a number of glaring inconsistencies. Most scholars agree that the likeliest explanation for such divergence is that the account as it now stands, preserves two distinct records:

*“Exegetical criticism has conclusively demonstrated – and this is admitted by all the experts without exception, Roman Catholic, Protestant and agnostic – that the narrative of Genesis 6–8 is in reality the fusion of two accounts, closely interwoven, one of which (J = Jahvistic) dates from the eighth century BC, the other (P = Priestly) dating at the earliest from the sixth century BC.”* [PARROT, *The Flood and Noah’s Ark*, p15]

What is not widely appreciated is that the main reason for arriving at this conclusion is that the *numbers* in successive verses of the same chapter of *Genesis*, don’t match; that is, the problematic discrepancies prove to be *mathematical*.

**NUMERICAL INCONSISTENCIES** are common throughout the Bible; but where a lack of supporting details precludes the fusion-hypothesis, such incongruities are simply dismissed by the experts as the result of ‘approximation’ – in place of a more rigorous ‘numeracy’. In the book of *Samuel*, for instance, David is accorded discrepant reigns:

*“David was 30 years old when he became king, and he reigned for 40 years. He reigned in Hebron over Judah for 7 years and 6 months; then he reigned in Jerusalem over all Israel and Judah for 33 years.”* [II SAMUEL V: 4/5]

A typical commentary abandons the search for a solution, distracted by the observation that the details of David’s life remain mysteriously thin, given his focal significance:

*“It is hard to know how seriously to take these figures. The number 40 is often used as a round number for a generation in the Bible, and it looks suspiciously like one in David’s case. Perhaps 33 was simply added to his 7½ years in Hebron (a more reliable number?) in order to bring the total to 40. Solomon is also credited with a 40-year reign. The book of II SAMUEL recounts strikingly little of David’s 33 years in Jerusalem, especially given David’s reputation as Israel’s greatest king.” [MCKENZIE, *King David: A Biography*, p138 – emphasis added]*

As I’ve shown, the discrepancy in this case may be readily resolved by recognizing that his disparate reigns in fact involve divergent calendar measures.<sup>1</sup>

**IS IT POSSIBLE** that the mathematical discrepancies in the account of the Flood might also benefit from a calendrical comparison? This hypothesis entertains the prospect that the disparate sums in chapters 6 through 8 in the book of *Genesis* were meant to be interpreted as complementary aspects of a new ‘anointed’ calendar measure.

- 1 Both reigns involve the 8-year calendar: Saul personifying the initial 100-month measure; David – 8<sup>th</sup> son of Jesse – the revised 99-month version. The 99-month 8-year cycle comprised five 12-month and three 13-month ‘years’. The disparity between the duration of David’s reigns (40 years 6 months) and their total (40 years) dissolves when you recognize that the variant sums may profitably be ‘reduced’ to an equivalent number of months. David’s first reign (7 years 6 months) comprises five 12-month [60] and two 13-month [26] ‘years’, as well as the six additional months, for a total of 92 months [60 + 26 + 6 = 92]; while his successive reign of 33 years may be broken into four 99-month cycles [4 × 99 = 396] plus an extra 12-month ‘year’, for a total of 408 months [396 + 12 = 408] – the two sums combining to produce a grand total of 500 months [92 + 408 = 500]. Which equals the number of months in a 40-year reign when computed as five of the ineffectual 100-month 8-year cycles [40 = 8 × 5; 5 × 100 = 500]: *ie*, the same number of months, but a more enduring reign (given the inherent problem, after 128 years, with Saul’s inferior measure). David, in other words, embodies the solution to a calendrical complication involving two disparate measures – the scripture drawing attention to the greater durability of the later ‘anointed’ refinement, with the conspicuous incongruity of these contiguous sums. [*cf*, *Myth as Math*, pp149f]

The first glaring discrepancy involves the animals Noah is instructed to take aboard the ark:

*“Of all the clean animals you must take seven of each kind, both male and female; of the unclean animals you must take two, a male and its female (and of the birds of heaven also, seven of each kind, both male and female), to propagate their kind over the whole earth.”* [GENESIS VII: 2/3]

A few lines later the narrative appears contradictory:

*“(Of the clean animals and the animals that are not clean, of the birds and all that crawls on the ground, two of each kind boarded the ark with Noah, a male and a female, according to the order God gave Noah.)”* [GENESIS VII: 8/9]

First impressions may lead reflexively to the conclusion that these are likely different accounts of the same event; but is it not conceivable that the disparity might arise from separate measures of the same thing (eg, 5 fingers, 1 hand)?

Entertaining the hypothesis that both accounts refer to the lunar cycle, it may be seen that the initial sum tidily accords with the seven focal phases in the lunation: waxing crescent; waxing half-moon; twin full moons; first waning phase; waning half-moon; and waning crescent. These are the only spectres or phases in a lunation which are readily identifiable on observation. Phases between these spectres cannot be conclusively identified on sight; the observer able only to recognize them as spectres which fall somewhere in the lunation sequence between two ‘clean’ phases.

The ‘unclean’ phases between the ‘clean’ ones are each accorded a night and a day – or male and female issues<sup>2</sup> – because the moon was perceived as a distinct male spectre which descended into the underworld lair of the goddess during ‘his’ daytime, to propagate the successive phase for

2 The visible phases were considered male because the lunation begins and ends with a phallic sliver (waxing and waning crescents); while the two nights without a visible spectre in the sky were denoted female because the moon was believed to have been confined to the underworld realm of the earth-mother goddess during the dark interval.

the following nighttime; each male spectre coupling with a different aspect of the lunar goddess. Which holds true for both 'clean' and 'unclean' phases – explaining the apparent conflict between the 'divergent' accounts.

As suspected, the model of the generic lunation suggests that these apparently contradictory allusions may in fact prove to be supplementary. The birds aboard, for example, lay the emphasis on 'something that flies' in the model alluded to – directing attention to the sky. After the flood, Noah sends a raven<sup>3</sup> out (the bird of night, emblem of the underworld) followed by a dove (white like the moon). But the dove is forced to return to the ark twice before finding a perch – the *third* night of the successive lunation bearing the first sign of the new moon on high.<sup>4</sup>

The Flood, in other words, here accords with a *recurrent* phenomenon: the submergence of the moon in the waters of the underworld, for three days and two nights following the decline of waning crescent at the end of each lunation. Which would explain the 'immortality' of Ut-napishtim:<sup>5</sup> he must conduct the 'seed' (or spark) of renewed life (or light) through the extinguishing depths of the underworld, to restore the moon to its place in the sky following the 'deluge' which consumes every lunation – for all eternity.

A long tradition of employing animals to represent lunar phases, as I have shown,<sup>6</sup> stretches back beyond the period of the Palæolithic cave murals – the horns of the ungulates drawing a natural association in primitive iconography, with the lunar crescents. In a symbolic light, Noah may be

3 The symbol of the raven alerts the reader to the possibility that the passage has something to do with night; the recurrent attempts of the dove, that it deals with something white which takes three tries to secure a perch; while birds naturally implicate the sky.

4 GENESIS VIII: 6–12

5 Ut-napishtim (the ancestor of Gilgamesh) who "alone among all men" gained eternal life, was the Sumerian Noah. [PARROT, *The Flood and Noah's Ark*, p25]

6 *Lascaux Measures: A Review of the Symbolism of Palæolithic Parietal Figures*

understood merely to transport the identifying totem for each lunar phase, through the underworld seas during the ‘three-day and two-night dark interval’ between waning and waxing crescents, to the subsequent lunation.

**THE SECOND DISCREPANCY** in the Biblical version of the Flood concerns its end:

*“It was in the six hundred and first year of Noah’s life, in the first month and on the first of the month, that the water dried up from the earth. Noah lifted back the hatch of the ark and looked out. The surface of the ground was dry!”*

[GENESIS VIII: 13]

Yet in the very next line the text asserts:

*“In the second month and on the twenty-seventh day of the month the earth was dry.”* [GENESIS VIII: 14]

Might the model of lunar measure likewise render these divergent accounts complementary?

When “he became the father of Shem, Ham and Japheth” Noah was 500 years old.<sup>7</sup> “In the six hundredth year of Noah’s life, in the second month, and on the seventeenth day of that month” the Flood began.<sup>8</sup> And on the first day of the first month of his six-hundred-and-first year, all the water was gone.

The Flood – which ended on day 219,001 of Noah’s life<sup>9</sup> and began on day 218,682<sup>10</sup> – can thus be computed to have lasted 319 days.<sup>11</sup> And the number ‘319’ conceals a telltale calendrical innovation, in the product of eleven of the new 29-day months employed – following the Flood – in the variable-month calendars of the Greeks and Israelites.<sup>12</sup>

7 GENESIS V: 32

8 GENESIS VII: 11 – *ie*, 99 years later (prefiguring a 99-interval measure)

9 600 years × 365 days per year = 219,000 days + 1 day (the first day of the first month of the 601st year) = 219,001 days

10 599 years × 365 days per year = 218,635 days + 30 days (the first month) + 17 days (of the second month) = 218,682 days

11 219,001 – 218,682 = 319 [11 × 29]

12 *Myth as Math*, pp17ff

This radical innovation drew the measure of the ‘month’ far nearer to that of the mean ‘lunation’ (29.530588 days) by alternating 29-day male and 30-day female months in an attenuated great-year calendar extending eight years.<sup>13</sup> The Egyptian and Babylonian calendar which it replaced needed constant adjustment to bring it back into alignment with the solar cycle, because of its rigid adherence to the 30-day month.<sup>14</sup>

The variable-month 8-year cycle comprised 99 months: 49 male 29-day months (1421 days) plus 50 female 30-day months (1500 days) extending 2921 days. Eight solar years consume 2922 days.<sup>15</sup> Thus a solitary extra intercalary day was added every 8 years to adjust the cycle to the seasons.

But the *initial* measure of the 8-year calendar cycle – the flawed 100-month variant – had been conceived with eight 364-day years comprising eleven 29-day months plus one-and-a-half 30-day months, requiring the addition of an extra ten intercalary days every cycle.<sup>16</sup>

Both these innovations were an improvement over the earlier calendar which required an extra 5 days per year (as well as further complex adjustments every 25, 70, 350 and 500 years).<sup>17</sup> The 100-month 8-year cycle, however, proved problematic after 128 years,<sup>18</sup> prompting the revision of the ‘anointed’ 99-month version.

13 Two lunations ( $2 \times 29.530588 = 59.061176$ ) exceeding two alternating months ( $29 + 30 = 59$ ) by 88 minutes ( $0.061176 \times 1440 = 88.09344$ ).

14 Twelve 30-day months in the generic year (360 days) which had to be completed with the addition of 5 intercalary days per year (Egyptian) or an extra month every six years (Babylonian).

15  $8 \times 365.2422 = 2921.9376$  (2922 with the year computed at 365.25 days)

16  $[11 \times 29] 319 + 45 [1\frac{1}{2} \times 30] = 364$ ;  $8 \times 364 = 2912$ ;  $2912 + 10 = 2922$

17 *Instructions for Restoring the Ancient Wisdom*, pp48/9

18 Extended application of the 100-month 8-year measure exhausted its usefulness in synchronizing lunar and solar cycles after 128 years, because each 8-year cycle exceeded the length of 8 solar years by .0625 days or 90 minutes ( $2922 - 2921.9376$ ). Meaning that after 16 of the 100-month 8-year cycles, the great-year measure would be an entire day ahead of the sun, which would require subtraction to rectify. But intercalation of calendrical measures is confined to adding days to



The duration of the Flood – 319 days – therefore, alerts us to the possibility that the introduction of the variable-month calendar occasioned a disruption which allowed the old corrupt order to be replaced.<sup>19</sup> But only after the waters had disappeared (with the passing of the flawed 100-month version of the 8-year calendar) were conditions restored to God’s liking. The perfected 99-month 8-year calendar was anointed the Chosen Measure.

Thus, in a calendrical light, the Biblical narrative of the Flood demonstrably accords both with the nature of the heavenly lunation and man’s attempts to perfect an earthly calendar with which to keep track of it.

**NOAH HAD LIVED 600 YEARS** when the Flood came to an end. Computed in whole years, he had lived 219,000 days.<sup>20</sup> But the year actually exceeds 365 days; the new eight-year calendar reckoned in years of 365.25 days. His age in reality comprising 219,150 days: a difference of 150 days.<sup>21</sup>

The Flood began on the 17th day of the second month<sup>22</sup> after Noah’s 599th birthday; while the ark came to rest atop Mount Ararat on the 17th day of the seventh month.<sup>23</sup>

---

bring a lagging calendar back into step with the celestial cycles (10 days each 100-month cycle). The 99-month variant of the 8-year great-year measure rectified the defect by falling short of 8 solar years .9376 days every cycle (without the intercalated day). Meaning that the single day which was intercalated after each of the first fifteen 8-year cycles could be withheld after the sixteenth 8-year cycle to bring the calendar and solar cycles back into step, once an entire day difference had been accumulated. [*Instructions for Restoring the Ancient Wisdom*, p50]

19 “The earth grew corrupt in God’s sight, and filled with violence...of man’s making” [GENESIS VI: 11, 13] “He rid the earth of them, so that only Noah was left, and those with him in the ark” [GENESIS VII: 23] – the corrupt calendar (‘time’ made by man) had long violated Nature (‘time’ orchestrated by God) in continually falling out of step with the visible seasons (*God’s sight*).

20 600 years × 365 whole days per year = 219,000 days

21 600 years × 365.25 rounded days per year = 219,150 days

22 GENESIS VII: 11

23 GENESIS VIII: 4 – an interval of five months × 30 days = 150 days

*“The waters rose on the earth for 150 days.”* [GENESIS VII: 24]

In other words, the 150-day disparity in Noah’s age over a period of 600 years, when calculated with the approximate (Egyptian 365-day) and more accurate (Israelite 365.25-day) year-lengths, accords with the rise of the flood-waters over the earth. That is, the revised measure of 600 years rose by 150 days with the improved year of the ‘anointed’ measure: the rising tide in actuality a swelling of time.

**THE BIBLICAL ACCOUNT** of the Flood likewise preserves a computation of the ‘swell’ in the actual lunation, above the expedient measure of the 29.5-day month.<sup>24</sup> The difference between the length of the mean lunation (29.530588 days) and the generic month (29.5 days) is 0.030588 days. Over a period of 600 rounded years (219,000 days) there would be 7423.7288 generic months.<sup>25</sup> Multiplying this figure by the ‘swell’ of a lunation gives a product of 227.07701 days.<sup>26</sup>

The Biblical allusion to this product is secreted in the enigmatic second date for the end of the Flood:

*“In the second month and on the twenty-seventh day of the month the earth was dry.”* [GENESIS VIII: 14]

Cryptic though it may be, the numbers 2 and 27 accord remarkably with the number of days lost over a period of 600 rounded years, employing the generic month instead of the actual lunation: 227.

Although one’s first inclination might be to dismiss the similarity as a coincidence, the fact that three earlier figures in the Flood narrative also accord with calendar measures (not to mention the *calendrical* nature of a conflict in *dates* for the end of the Flood; or the demonstrable resolution of David’s disparate reigns) lends credence to the equivalence in this otherwise incomprehensible reference.

24  $29 + 30 = 59$ ;  $59 \div 2 = 29.5$

25  $219,000 \text{ days} \div 29.5 \text{ days per generic month} = 7423.7288 \text{ generic months}$

26  $7423.7288 \text{ months} \times 0.030588 \text{ days} = 227.07701 \text{ days}$ ;  $0.07701 \text{ days} \times 1440 \text{ minutes} = 110.8944 \text{ minutes}$  or 1 hour 50 minutes 54 seconds

NEITHER IS IT A COINCIDENCE that there were 8 people aboard the ark: Noah, his three sons, and their four wives personifying the ‘anoined’ 8-year calendar.

*“Then God said to Noah, ‘Come out of the ark, you yourself, your wife, your sons, and your sons’ wives with you.... Be fruitful, multiply and fill the earth.’...and from these the whole earth was peopled.”* [GENESIS VIII: 15; IX: 1, 19]

And God made their line (or measure) a promise:

*“I establish my Covenant with you: no thing of flesh shall be swept away again by the waters of the flood. There shall be no flood to destroy the earth again.”* [GENESIS IX: 11]

In terms of the calendrical hypothesis, the new eight-year great year measured time so much more accurately than its predecessor, that the prospect of a future replacement of *this* earthly or man-made refinement had been obviated.

It reflected the nature of the solar and lunar cycles more clearly than any previous measure; the *animals* released from the ark (*ie*, its nightly measures better equating with the *natural* phases of the actual lunation) ‘propagating’ without threat of future annihilation, because commensurate.

The generic month of 30 days employed in the earlier Egyptian calendar exceeded the duration of the mean lunation by 11 hours 15 minutes 57 seconds.<sup>27</sup> Meaning that an extra calendar (or man-made) day exceeding the natural cycle of the lunation was accumulating every 64 days.<sup>28</sup> In a year of twelve 30-day months the accumulation exceeded five days.<sup>29</sup> And these man-made days “of flesh” had to be “swept away” to align the month with God’s natural cycle – but unlike added intercalations, subtracting calendar days invites chaos (*cf*, 3–13 September 1752).

27 30 days in a generic month – 29.530588 days in the mean lunation = 0.469412 days difference; 0.469412 days × 24 hours = 11.265888 hours or 11 hours 15 minutes 57 seconds

28 1 accumulated day ÷ 0.469412 days per generic month = 2.1303247; 2.1303247 months × 30 days per generic month = 63.909741 days

29 0.469412 days × 12 generic months = 5.632944 accumulated days or 5 days 15 hours 11 minutes 26 seconds

## SELECT BIBLIOGRAPHY

- ANDERSON, BERNHARD W. *Understanding the Old Testament* (1966) PRENTICE-HALL, ENGLEWOOD CLIFFS NEW JERSEY
- BICKERMAN, E. J. *Chronology of the Ancient World* (1969) THAMES & HUDSON, LONDON
- CHARLES, ROBERT HENRY (translator) *The Book of Enoch* (1991) SOCIETY FOR THE PRESERVATION OF CHRISTIAN KNOWLEDGE, LONDON
- *The Book of Jubilees or The Little Genesis* (2005) IBIS PRESS, BERWICK MAINE
- CLAGETT, MARSHALL *Ancient Egyptian Science: A Source Book* VOLUME II: *Calendars, Clocks, and Astronomy* 1995: AMERICAN PHILOSOPHICAL SOCIETY, PHILADELPHIA: MEMOIR 214
- DOUGLAS, J. D. (editor) *New Bible Dictionary* (1982) INTERVARSITY PRESS, LEICESTER / TYNDALE HOUSE, WHEATON ILLINOIS
- DRUMBOLIS, NICK *The Abstracts* (2009) LETTERS, PARKDALE
- *God's Shadow: A Chronological Supplement of Sample Figures Illustrating a Continuous Tradition of Covert Lunar Notation* (2004) LETTERS, TORONTO
- *God's Wand: The Origin of the Alphabet* 2002: LETTERS, PARKDALE
- *Instructions for Restoring the Ancient Wisdom: A Primer of the Pythagorean Practicum* (2009) LETTERS, PARKDALE
- *Lascaux Measures: A Review of the Symbolism of Palaeolithic Parietal Figures* (2008) LETTERS, TORONTO
- *Myth as Math: Calendrical Significance in the Mosaic Census of the Sons of Israel* 2007: LETTERS, TORONTO
- *Shrouded in Scripture* (2004) LETTERS, PARKDALE
- JONES, ALEXANDER (editor) *The Jerusalem Bible* Illustrations by Salvador Dalí 1970: DOUBLEDAY, GARDEN CITY NEW YORK
- MCKENZIE, STEVEN L. *King David: A Biography* 2000: OXFORD PARROT, ANDRÉ *The Flood and Noah's Ark* translated by Edwin Hudson (1955) SCM PRESS, LONDON
- RICHARDS, E. G. *Mapping Time: The Calendar and Its History* (2005) OXFORD UNIVERSITY PRESS
- SANDARS, N. K. (translator) *The Epic of Gilgamesh* (1964) PENGUIN BOOKS, HARMONDSWORTH
- SMITH, HENRY PRESERVED *A Critical & Exegetical Commentary on the Books of Samuel* 1899: CLARK, LONDON